

AUG 22 2008

Application No. 10/798,632Client Reference No. N0186USAmendments to the Claims:

1-41. (Canceled).

42. (Currently Amended) A method for facilitating game development, the method comprising:

producing, by a map developer, a source geographic database containing data representing a real-world locale including

- (i) geographic coordinates of positions of roads,
- (ii) street names of the roads,
- (iii) address ranges along the roads,
- (iv) turn restrictions at intersections of the roads,
- (v) road connectivity, and
- (vi) road shape;

transforming, by the map developer, the data representing the real-world locale into data representing an imaginary geographic locale to form a template geographic database;

storing, by the map developer, the template geographic database on a [[first]] computer-readable medium; and

providing, by the map developer to a game developer, the [[first]] computer-readable medium containing the template geographic database, the game developer being separate from the map developer;

wherein the template geographic database is used by the game developer along with other computer-game components to form a computer game.

~~incorporating, by the game developer, at least some data from the template geographic database along with other computer game components to form a computer game;~~

~~storing the computer game on a second computer-readable medium;~~
and

~~providing the second computer-readable medium containing the computer game to an end user[.]]~~

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43. (Previously Presented) The method of claim 42 wherein the source geographic database comprises attributes suitable for providing navigation-related functions for a real-world road network.
44. (Previously Presented) The method of claim 43 wherein the template geographic database provides a level of accuracy similar to a level of accuracy provided by the source geographic database for navigation-related functions.
45. (Previously Presented) The method of claim 43 wherein the template geographic database provides a level of detail similar to a level of detail provided by the source geographic database for navigation-related functions.
46. (Previously Presented) The method of claim 42 wherein transforming comprises:
- selecting a characteristic geographic parameter of the source geographic database; and
 - using the selected characteristic geographic parameter and at least some data from the source geographic database when forming the template geographic database;
 - wherein the template geographic database has a characteristic geographic parameter similar to the characteristic geographic parameter of the source geographic database.
47. (Currently Amended) The method of claim 46 wherein the selected characteristic geographic parameter is selected from the set consisting of: road density[[,]] road-shape, road width, expressway density, roadway orientation, road alignment, altitude changes, points of interest, buildings, and signs.
48. (Previously Presented) The method of claim 46 wherein the selected characteristic geographic parameter comprises geographic features selected from the set consisting of: lakes, rivers, and mountains.

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49. (Previously Presented) The method of claim 46 wherein the selected characteristic geographic parameter comprises open spaces selected from the set consisting of: parks and golf courses.
50. (Currently Amended) The method of claim 42 wherein transforming comprises applying an operation selected from the set consisting of: ~~selecting less than all of the data in the source geographic database~~[[,]] altering a location of a road segment, moving locations of roads by varying distances, switching a relative vertical ordering of roads that cross one another at different elevations[[,]] ~~forming mirror images of roads located in an area~~, and performing horizontal or rotational transformations of locations of roads.
51. (Currently Amended) The method of claim 42 wherein the [[first]] computer-readable medium is selected from the set consisting of: a magnetic disk, an optical disk, RAM, ROM, and a network transmission.
52. (Currently Amended) The method of claim 42 wherein providing the [[first]] computer-readable medium containing the template geographic database comprises applying a technique selected from the set consisting of: selling the [[first]] computer-readable medium and leasing the [[first]] computer-readable medium.
53. (Previously Presented) The method of claim 42 wherein the other computer-game components include at least one of the set consisting of: characters, game logic, vehicles, game rules, and programs for rendering and graphics.

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54. (Previously Presented) The method of claim 42 further comprising:
combining, by the map developer, data in the template geographic database with road-model data to provide a realistic visual appearance of roads in the imaginary geographic locale, wherein the road-model data comprise an element selected from the set consisting of: road pavement colors, lane stripe markings, curbs, sidewalks, signs, lampposts, lane dividers, traffic signals, speed bumps, and crosswalks.
55. (Previously Presented) The method of claim 42 further comprising:
combining, by the map developer, data in the template geographic database with 3D model data to provide a realistic visual representation of polygon-shaped features in the imaginary geographic locale.
56. (Previously Presented) The method of claim 42 further comprising:
combining, by the map developer, data in the template geographic database with 3D model data to provide a realistic visual representation of cityscape and landscape features in the imaginary geographic locale.
57. (Previously Presented) The method of claim 42 further comprising:
combining, by the map developer, data in the template geographic database with 3D model data to provide a realistic visual representation of an element selected from the set consisting of: buildings, fences, trees, shrubbery, lawns, fences, and clouds.
58. (Previously Presented) The method of claim 42 further comprising:
insuring, by the map developer, data integrity in the template geographic database, wherein insuring data integrity comprises checking road connectivity.
59. (Currently Amended) A computer-readable medium containing computer-executable instructions for performing a method for facilitating game development, the method comprising:

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producing, by a map developer, a source geographic database containing data representing a road network in a real-world locale including a road network, wherein the data representing the real-world locale road network include navigation-related attributes ~~suitable for providing navigation-related functions~~ for digital route calculation and digital route guidance about the road network;

transforming, by the map developer, at least some data from the source geographic database to form a template geographic database, wherein the template geographic database contains data representing an imaginary geographic locale; and

storing, by the map developer, the template geographic database on a computer-readable medium, wherein the template geographic database is used for generating a computer game.

60. (Currently Amended) A method for facilitating game development, the method comprising:

producing~~[[,]] by a map developer[[,]]~~ a source geographic database containing data representing a plurality of road segments corresponding to a road network in a real-world locale;

transforming~~[[,]] by the map developer[[,]]~~ the data representing the ~~real-world locale~~ plurality of road segments into data representing an imaginary geographic locale to form a template geographic database; and

storing~~[[,]] by the map developer[[,]]~~ the template geographic database on a computer-readable medium, wherein the template geographic database is used for generating a computer game.

61. (Currently Amended) The method of claim 60 wherein ~~the map developer is separate from a game developer that generates the computer game~~ the data representing the plurality of road segments is not imagery data that correspond to visual appearances of roads.

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62. (Previously Presented) The method of claim 60 wherein the imaginary geographic locale does not represent the real-world locale but includes a characteristic similar to the real-world locale.
63. (Previously Presented) The method of claim 62 wherein the similar characteristic comprises a characteristic from the set consisting of: road density, road shape, road width, expressway density, roadway orientation, road alignment, altitude changes, points of interest, buildings, and signs.
64. (Currently Amended) The method of claim 60 wherein ~~the source geographic database comprises attributes suitable for providing navigation related functions for a real-world road network~~ data representing each of the plurality of road segments is associated with geographic coordinates and an address range.
65. (Currently Amended) The method of claim 60 wherein transforming comprises applying an operation selected from the set consisting of: altering a location of a road segment, moving locations of road[[s]] segments by varying distances, switching a relative vertical ordering of road[[s]] segments that cross one another at different elevations[[.]] ~~forming mirror images of roads located in an area,~~ and performing horizontal or rotational transformations of locations of road[[s]] segments.
66. (Currently Amended) The method of claim 60 further comprising:
combining[[.]] ~~by the map developer[[.]]~~ data in the template geographic database with road-model data to provide a realistic visual appearance of roads in the imaginary geographic locale, wherein the road-model data comprise an element selected from the set consisting of: road pavement colors, lane stripe markings, curbs, sidewalks, signs, lampposts, lane dividers, traffic signals, speed bumps, and crosswalks.

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67. (Currently Amended) The method of claim ~~[[42]]~~ 60 further comprising:
insuring~~[[,]] by the map developer[[,]]~~ data integrity in the template geographic database, wherein insuring data integrity comprises checking road segment connectivity.
68. (Currently Amended) A method for facilitating game development, the method comprising:
producing~~[[,]] by a map developer[[,]]~~ a source geographic database containing data representing a plurality of road segments corresponding to a real-world locale including a road network, wherein the data representing the ~~real-world locale~~ plurality of road segments are configured to be compiled for navigation related functions in a vehicle navigation device includes attributes ~~suitable for providing navigation related functions for the road network;~~
transforming~~[[,]] by the map developer[[,]]~~ at least some data representing the plurality of road segments from the source geographic database to form a template geographic database, wherein the template geographic database contains data representing an imaginary geographic locale; and
storing~~[[,]] by the map developer[[,]]~~ the template geographic database on a computer-readable medium, wherein the template geographic database is used for generating a computer game.
69. (Currently Amended) The method of claim 68 wherein ~~the map developer is separate from a game developer that generates the computer game~~ producing the source geographic database and transforming to form the template geographic database is implemented by the same entity.
70. (Previously Presented) The method of claim 68 wherein the imaginary geographic locale does not represent the real-world locale but includes a characteristic similar to the real-world locale.

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71. (Previously Presented) The method of claim 70 wherein the similar characteristic comprises a characteristic from the set consisting of: road density, road shape, road width, expressway density, roadway orientation, road alignment, altitude changes, points of interest, buildings, and signs.
72. (Currently Amended) The method of claim 68 wherein transforming comprises modifying a substantial portion of the data representing the plurality of road segments of the road network corresponding to a city of the real-world locale.
73. (Currently Amended) The method of claim 72 wherein modifying comprises an operation selected from the set consisting of: altering a location of a road segment, moving locations of road[[s]] segments by varying distances, switching a relative vertical ordering of road[[s]] segments that cross one another at different elevations[[.]] ~~forming mirror images of roads located in an area,~~ and performing horizontal or rotational transformations of locations of road[[s]] segments.
74. (Currently Amended) The method of claim 68 further comprising:
combining[[,.]] ~~by the map developer[[.]]~~ data in the template geographic database with road-model data to provide a realistic visual appearance of roads in the imaginary geographic locale, wherein the road-model data comprise an element selected from the set consisting of: road pavement colors, lane stripe markings, curbs, sidewalks, signs, lampposts, lane dividers, traffic signals, speed bumps, and crosswalks.
75. (Currently Amended) The method of claim 68 further comprising:
insuring[[,.]] ~~by the map developer[[.]]~~ data integrity in the template geographic database, wherein insuring data integrity comprises checking road segment connectivity.

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76. (New) A method for facilitating game development, the method comprising:

producing a source geographic database containing data corresponding to roads in a real world geographic locale including

- (i) geographic coordinates of positions of the roads,
- (ii) street names of the roads,
- (iii) address ranges along the roads,
- (iv) turn restrictions at intersections of the roads,
- (v) road connectivity, and
- (vi) road shape;

transforming data representing a real-world road network structure from the source geographic database to form a template geographic database, wherein the template geographic database contains data representing an imaginary road network structure, wherein said step of transforming includes at least one of modifying of the positions of the roads and changing the street names of the roads; and

storing the template geographic database on a computer-readable medium, wherein the template geographic database is used for generating a computer game.

77. (New) The method of claim 76 wherein transforming comprises:

selecting a characteristic geographic parameter of the source geographic database; and

using the selected characteristic geographic parameter and at least some data from the source geographic database when forming the template geographic database;

wherein the template geographic database has a characteristic geographic parameter similar to the characteristic geographic parameter of the source geographic database.

78. (New) The method of claim 77 wherein the selected characteristic geographic parameter is selected from the set consisting of: road density, road width, expressway density, roadway orientation, road alignment, altitude changes, points of interest, buildings, and signs.

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79. (New) The method of claim 77 wherein the selected characteristic geographic parameter comprises geographic features selected from the set consisting of: lakes, rivers, and mountains.
80. (New) The method of claim 77 wherein the selected characteristic geographic parameter comprises open spaces selected from the set consisting of: parks and golf courses.